IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 18, Issue 5 Ser. 14 (May. 2019), PP 68-74
www.iosrjournals.org

Neoplastic and Non Neoplastic Colorectal Lesions -A 2 Year Prospective and Retrospective Study in a Teritiary Care Centre

Dr.D.Sunilkumar [1], *Postgraduate in Siddhartha medical college*
Dr.U.Arunajyothi ,[2] *[2]Asst prof of pathology*
others: Dr.M.RajaniAssociate professor
Dr.Ramareddy.professor. and DR..N.Bharath rao prof and HOD
Corresponding Author: Dr.U.Arunajyothi

Abstract: ***Introduction:*** *The study of colorectal lesions is fascinating as they constitute a wide variety of both neoplastic and non neoplastic lesions[1]The Colon and rectum can be sites for infections, Idiopathic inflammatory bowel disease, vascular disorders and various neoplasms[2] Colorectal neoplasms ranks second according to WHO classification.*

Materials and methods: *It is retrospective and prospective study of all biopsies and resected specimens of colorectal lesions received at department of pathology from department of surgery GGH,were subjected to histopathological examination.Period of study from febrauary 2017 to march 2019*
colorectal biopsies are processed , sections of 3-5 µ thickness were cut and stained with routine hematoxylin and eosin stain.

Results: *Out of 46 casesstudied 20 cases were chronic colitis, 8 cases were inflammatory bowel disease , 2 cases were adenomas , 3 cases were polyps, 10 cases were adenocarcinoma of colon, 3 cases were adenocarcinoma of rectum*

Conclusion: *A variety of both neoplastic and non-neoplastic colorectal lesions were reported in the present study across wide age distribution and the findings are correlated with histopathological examination . The current recommendation for colorectal cancer screening in most countries is to begin screening at age 50 for men and women who are at average risk for developing colorectal cancers.[3,4,5]*

Date of Submission: 10-05-2019 Date of acceptance: 27-05-2019

I. Introduction

The study of colorectal lesions is fascinating as they constitute a wide variety of both neoplastic and non neoplastic lesions.The Colon and rectum can be sites for infections, Idiopathic inflammatory bowel disease, vascular disorders and various neoplasms. Colorectal neoplasms ranks second according to WHO classification.[6,8], Their incidence in India is about 7/1,00,000.Carcinomas of the large bowel are common in Northwest Europe and North America but low in Africa ,Asia and some parts of south AmericaAs per the GLOBOCAN project undertaken by WHO in 2012,it is the third most common cancer in men and the second most common in women.[11,12]

II. Aims And Objectives

• To study various histological variants of neoplastic and non neoplastic colorectal lesions and to know the incidence, in relation to age and sex distribution. Specimens received in the department of pathology,Siddhartha MedicalCollege,Vijayawada,were included in the present study.

III. Materials And Methods

It is retrospective and prospective study of all biopsies and resected specimens of colorectal lesions received at department of pathology from department of surgery GGH,were subjected to histopathological examination.Period of study from. febrauary 2017 to march 2019 colorectal biopsies are processed , sections of 3-5 µ thickness were cut and stained with routine hematoxylin and eosin stain.

IV. Method of collection of data:

All the patients were subjected to detail clinical examination and routine laboratory tests.Wherever possible radiological imaging techniques were employed.In the cases collected during the retrospective study their clinical records were analysed.

specimens were fixed in 10% NBF and then routinely processed to have paraffin sections and stained with Haematoxylin & Eosin routinely.Multiple blocks were taken based on size,variability of gross features and adjacent areas and sections analysed.

The macroscopic and microscopic findings in these specimens were tabulated and analysed.In cases of retrospective study the macroscopic findings were collected from records and sections cut from blocks were analysed.

V. Inclusion and exclusion criteria:

All specimens with macroscopically and microscopically detected tumors and tumor like lesions of colon and rectum mentioned in the WHO classification were included

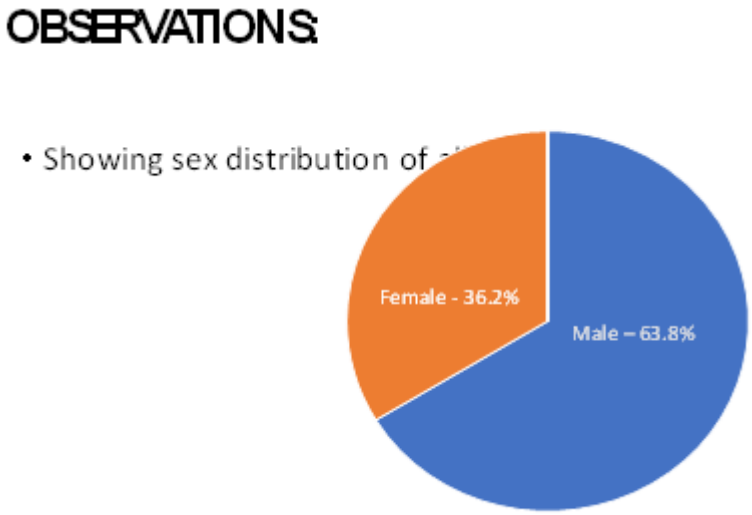
VI. Observations

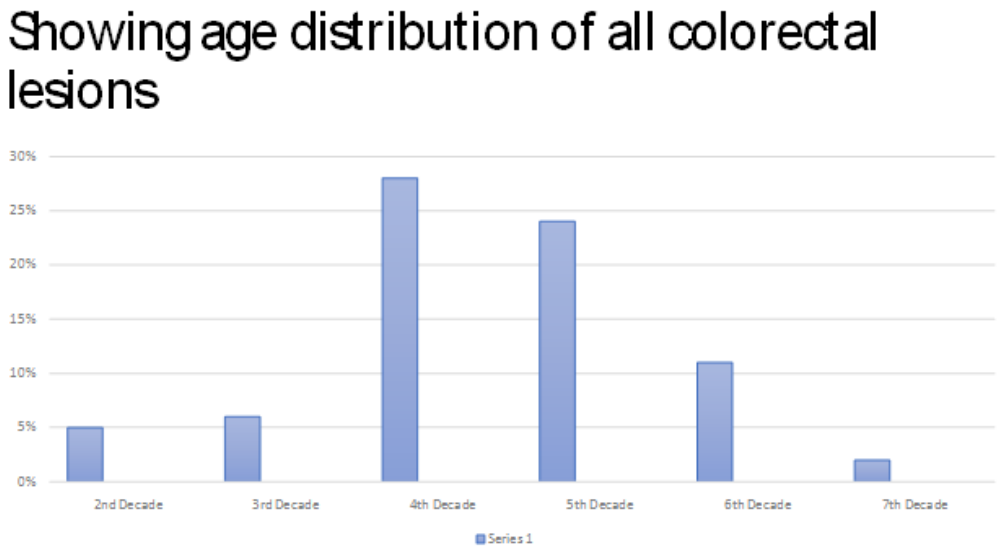
RESULTS:

Salient observations made in this study are as follows-

Total number of 46 cases were studied .

Out of 46 casesstudied 20 cases were chronic colitis, 8 cases were inflammatory bowel disease , 2 cases were adenomas , 3 cases were polyps, 10 cases were adenocarcinoma of colon, 3 cases were adenocarcinoma of rectum





Distribution of all lesions

Diagnosis	Number of cases	Percentage
Non neoplastic	28	60.86%
neoplastic-benign	5	10.8%
Neoplastic-malignant	13	28.26%
total	46	100%

Age distribution of non neoplastic lesions

Sl.	Diagnosis	10-19	20-29	30-39	40-49	50-59	60-69
1	Chronic colitis	-	2	10	2	3	2
2	Ulcerative colitis	-	3	1	1	-	-
3	Crohn's disease	-	1	2	-	-	-
4	Eosinophilic colitis	-	-	1	-	-	-
5	total	0	6	14	3	3	2

Age distributions of benign neoplasms

Age group	Number of cases	percentage
10-19	1	20%
20-29	-	0%
30-39	1	20%
40-49	2	40%
50-59	1	20%
total	5	100%

Sex distribution of benign neoplasms

Sex	Number of cases	Percentage
males	3	60%
females	2	40%
total	5	100%

Histological types of benign neoplasms

Histological types of polyps	Number of cases	Percentage
Hyperplastic polyp	2	40%
Peutz-jeghers polyp	1	20%
Tubular adenoma	1	20%
Tubulovillous adenoma	1	20%
Total cases	5	100%

Age distribution of malignant neoplasms

Age in years	Number of cases	Percentage
10-19	-	0%
20-29	-	0%
30-39	2	15.3%
40-49	3	23.07%
50-59	5	38.46%
60-69	1	7.69%
70-79	2	15.3%
Total	13	100%

Sex distribution of malignant neoplasms

sex	Number of cases	Percentage
males	9	69.2%
Females	4	30.8%
Total	13	100%

Histological types of malignant colorectal neoplasms

Microscopic appearance	Number of cases	Percentage
Adenocarcinoma	9	69.23%
Mucinous adenocarcinoma	3	23.07%
Signet ring cell carcinoma	1	7.69%
total	13	100%

VII. Discussion

- A prospective and retrospective study of tumors and tumor-like lesionsof colon was undertaken during the period of febrauary 2017 to march 2019 (2 years), to evaluate histopathological features of various tumors and tumor-like lesions ofthe colon.The age of patients in the present study ranged from11 years to 78 years.
- Out of 46 casesstudied 20 cases were chronic colitis, 8 cases were inflammatory bowel disease , 2 cases were adenomas , 3 cases were polyps, 10 cases were adenocarcinoma of colon, 3 cases were adenocarcinoma of rectum.
- Colorectal cancer(CRC) is a formidable health problem worldwide.
- As per the GLOBOCAN project undertaken by WHO in 2012,it is the third most common cancer in men and the second most common in women.[6,8,9]In India, the annual incidence rates(AAR) for colon cancer and rectal cancer in men are 4.4 and 4.1 per 100,000 respectively and in women is 3.9 per 100,000.
- The current recommendation for colorectal cancer screening in most countries is to begin screening at age 50 for men and women who are at average risk for developing colorectal cancers.[3,4,5]

VIII. Conclusion

- A prospective and retrospective study of tumors and tumor-like lesionsof colon was undertaken during the period of febrauary 2017 to march 2019 toevaluate histopathological features of various tumors and tumor-like lesions ofthe colon. .In India, the annual incidence rates(AAR) for colon cancer and rectal cancer in men are 4.4 and 4.1 per 100,000 respectively and in women is 3.9 per 100,000.[8,9]

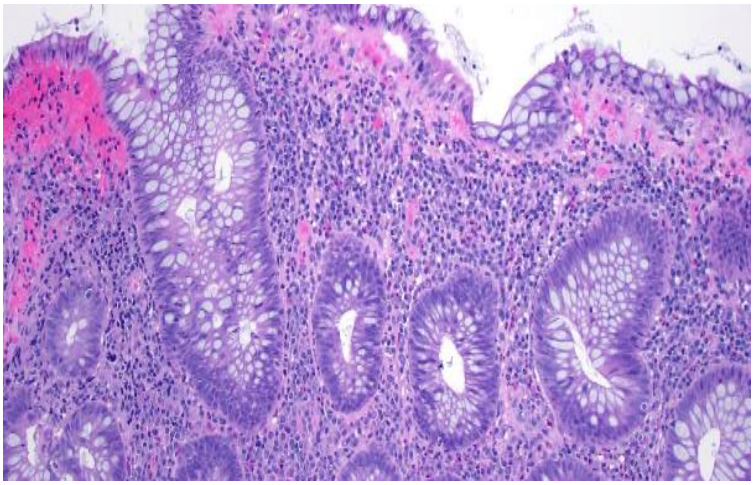
- A variety of both neoplastic and non-neoplastic colorectal lesions were reported in the present study across wide age distribution and the findings are correlated with histopathological examination .
- The current recommendation for colorectal cancer screening in most countries is to begin screening at age 50 for men and women who are at average risk for developing colorectal cancers. [3,4,5]

References

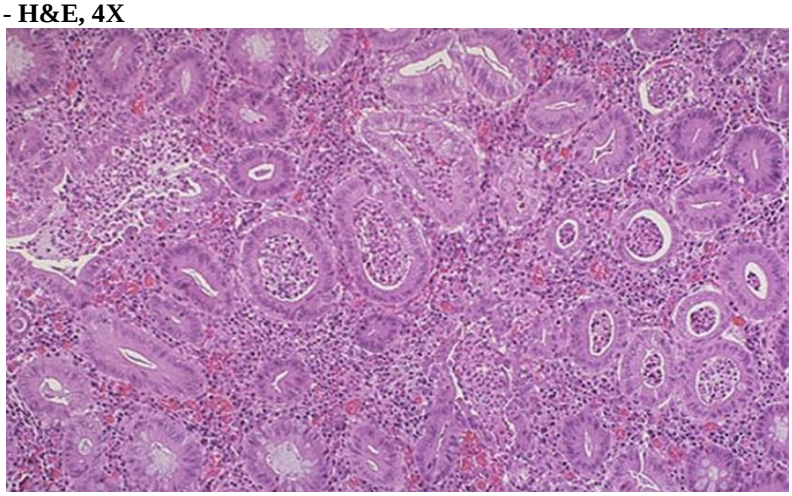
[1]. Kamocki ZK, Wodyñska NA, Etal... Significance of selected morphological and histopathological parameters of colon tumors as prognostic factors of cancer spread. Turk J Gastroenterol 2017. DOI: 10.5152
[2]. Boland CR, Goel A : microsatellite instability in colorectal cancer gastroenterology 138:2073, 2010.
[3]. Abilash etal .. Annals of Pathology and Laboratory Medicine, Vol. 4, Issue 5, September-October, 2015
[4]. Motion matsulura , Hiroko ohgaki , Ren's lambert. World cancer Report,Lyon2003,IARC Press,104-202
[5]. Bosman FTCarneiro F, Hruban RH ,Thesis ND(eds) : world health organisation classification of tumors of the Digestive system .IARC press:Lyon2010
[6]. R.L Drake , W.Vogl , A.W.M.Mitchell , Greys anatomy for students.5th .Ed.elsevier Churchill Livingstone,2005.273-276.
[7]. Mark Feldman, Lawrence S Friedman.Marvin H Sleisenger &Ford Transit Gastrointestinal and liver disease pathophysiology & management.7thed,vol1 and 2.Elsevier science 2002.
[8]. White head R, mucosal biopsy of the gastrointestinal tract.2nd ed,WB Saunders co.philadelphia:1979.
[9]. Ferlay J,Shin HR,Bray F,Forman D,MathersC, PARKIN DM. Estimates of worldwide burden of cancer in 20008:GLOBO CAN 2008.Int J Cancer.2010;127:2893-917.
[10]. Rossi and Ackerman's surgical pathology 9thed.vol.1,large bowel.chapter 11,Mosby 2004;776-885.
[11]. Fenoglio-preiser CM,Noffsinger AE,Stemmermann GN,Lantz PE,Isaacson PG.Gastrointestinal pathology.An atlas and text.3rd ed Wolters Kluwer/Lippincott Williams and Wilkins . Epithelial neoplasms of colon.chapter 14;2004 899-1035.
[12]. Desai PB.Carcinoma of the colon.Bombay Hospital Journal2000 April;42(2);256-259.

IMAGES:

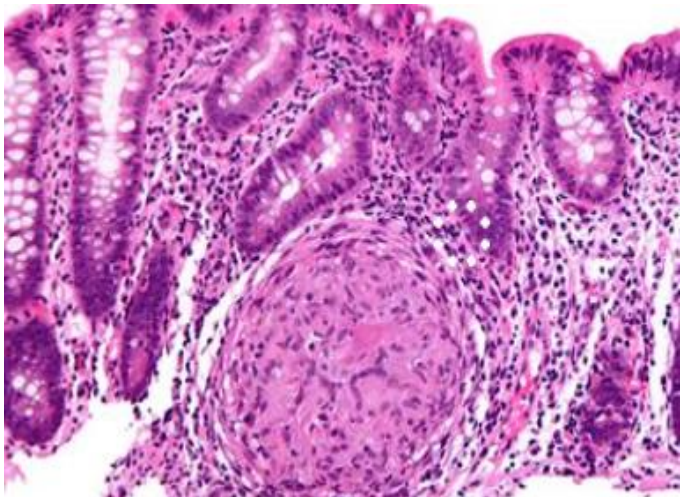
H&E, 4X- Chronic colitis



Ulcerative colitis - **H&E, 4X**

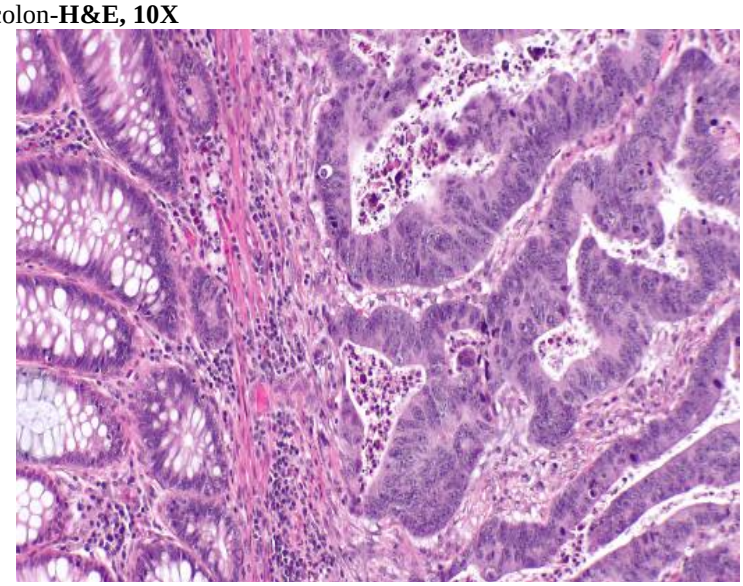


Crohn's disease **-H&E, 4X**



Adenocarcinoma of colon

Adenocarcinoma of colon-**H&E, 10X**



Dr.U.Arunajyothi . "Neoplastic and Non Neoplastic Colorectal Lesions -A 2 Year Prospective And Retrospective Study in a Teritiary Care Centre" IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 18, no. 5, 2019, pp 68-74.